

What is claimed is:

1. A method for inhibiting interferon gamma (IFN γ) levels in a T cell or cell population, comprising:

5 contacting said T cell or cell population with an IL-21 agonist in an amount sufficient to inhibit IFN γ in said T cell or cell population, wherein the agonist is an IL-21 polypeptide comprising an amino acid sequence at least 85% identical to SEQ ID NO: 2 and which is capable of binding to an IL-21R.

10 2. The method of claim 1, further comprising identifying a T cell or cell population in which inhibition of IFN γ levels is desired.

3. A method for promoting differentiation of a Th precursor (Thp) cell or cell population into a Th2 cell or cell population, comprising:

15 contacting said Thp cell or cell population with an IL-21 agonist in amount sufficient to induce differentiation of said Thp cell or cell population into a Th2 cell or cell population, wherein the agonist is an IL-21 polypeptide comprising an amino acid sequence at least 85% identical to SEQ ID NO: 2 and which is capable of binding to an IL-21R.

20 4. The method of claim 3, further comprising identifying a Thp cell or cell population in which differentiation into a Th2 cell or cell population is desired.

5. A method of inhibiting differentiation of a Thp cell or cell population into a Th1 cell or cell population, comprising:

25 contacting said Thp cell or cell population with an IL-21 agonist in an amount sufficient to inhibit differentiation of said Thp cell or cell population into a Th1 cell or cell population, wherein the agonist is an IL-21 polypeptide comprising an amino acid sequence at least 85% identical to SEQ ID NO: 2 and which is capable of binding to an IL-21R.

6. The method of claim 5, further comprising identifying a T cell population in which inhibition of differentiation of said Thp cell or cell population into a Th1 cell or cell population is desired.

5 7. The method of any of claim 1, 3 or 5, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:2.

8. The method of any of claim 1, 3 or 5, wherein the contacting step is carried out ex vivo, in vitro, or in vivo.

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9. The method of any of claim 1, 3 or 5, wherein the contacting step is carried out in a mammalian subject.

10. The method of claim 9, wherein the mammalian subject is a human.

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11. A method for inhibiting differentiation of a Th precursor (Thp) cell or cell population into a Th2 cell or cell population, comprising:

 contacting said Thp cell or population with an antagonist of an interleukin-21 (IL-21)/IL-21 receptor (IL-21R) in an amount sufficient to inhibit differentiation of said Thp cell or cell population into said Th2 cell population, wherein the antagonist is selected from the group consisting of an anti-IL21R antibody, an antigen-binding fragment of an anti-IL21R antibody and a soluble fragment of an IL-21R.

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12. The method of claim 11, further comprising identifying a T cell or cell population in which an inhibition of differentiation of Thp cell or cell population into a Th2 cell or cell population is desired.

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13. A method for increasing interferon gamma (IFN γ) levels in a T cell or cell population, comprising:

contacting said T cell or cell population with an antagonist of an IL-21/IL-21R in an amount sufficient to increase IFN γ levels in said T cell or cell population, wherein the antagonist is selected from the group consisting of an anti-IL21R antibody, an antigen-binding fragment of an anti-IL21R antibody and a soluble fragment of an IL-21R.

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14. The method of claim 13, further comprising identifying a T cell population in which an increase in IFN γ levels is desired.

15. The method of claim 11 or 13, wherein the soluble fragment of an IL-21R comprises an extracellular region of an IL-21 Receptor.

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16. The method of claim 15, wherein the soluble fragment comprises an amino acid sequence at least 85% identical to amino acids 20 to 235 of SEQ ID NO: 4 and which is capable of binding IL-21.

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17. The method of claim 15, wherein the soluble fragment comprises amino acids 1 to 235 of SEQ ID NO:4.

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18. The method of claim 15, wherein the soluble fragment further comprises an Fc fragment.

19. The method of claim 11 or 13, wherein the antagonist is an anti-IL21R antibody or an antigen-binding fragment thereof.

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20. The method of claim 12, wherein the T cell population comprises at least one Th1 cell.

21. The method of claim 11 or 13, wherein the contacting step is carried out ex vivo, in vitro or in vivo.

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22. The method of claim 21, wherein contacting step is carried out in a mammalian subject.

23. The method of claim 22, wherein the mammalian subject is a human.